

WHAT THE HVAC

IS A BUILDING AUTOMATION SYSTEM?!

Imagine a dashboard that shows clearly and quickly how all your building systems (heating, cooling, lighting, life safety) are doing:

That's a Building Automation System (BAS).

THE BAS MISSION



ATC

Keep your people comfortable.



ENERGY MANAGEMENT

Save energy which helps your wallet and the planet.



SECURITY

Keep your building secure and know what's going on.



SAFETY

Protect your people and your property.

Look! It's a BMS.

No! It's an ATC!

Is it a BCS?

Maybe an EMS?

It's an FMCS.



BUILDING AUTOMATION SYSTEMS



IMAGINE YOUR BUILDING CAN...

FEEL

Receive **inputs** by using sensors

THINK

Use **logic** to match your requirements

DO

Send **outputs** by using end devices

ATC



TEMPERATURE

Fact. It is 78 degrees in here.

Hmmm...That's probably a little hot.
I want it colder.

Opens damper, cools down air,
pushes cold air into room.

HUMIDITY

There is so much moisture in this room!

This room is probably getting moldy
and sweaty. I should change that.

Opens cold water valve to strain
moisture out of air.

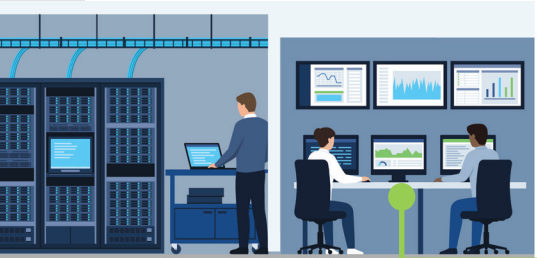
INDOOR AIR QUALITY (IAQ)

This room STINKS!!!

Outside air could make this room fresher.

Opens damper to outside and pushes in
fresh air.

ENERGY



OCCUPANCY

ANYONE HERE??? Man, I'm lonely.

Well, if no one is here to care,
why am I working so hard?

Turns off lights, AC units, and fans
until people return.

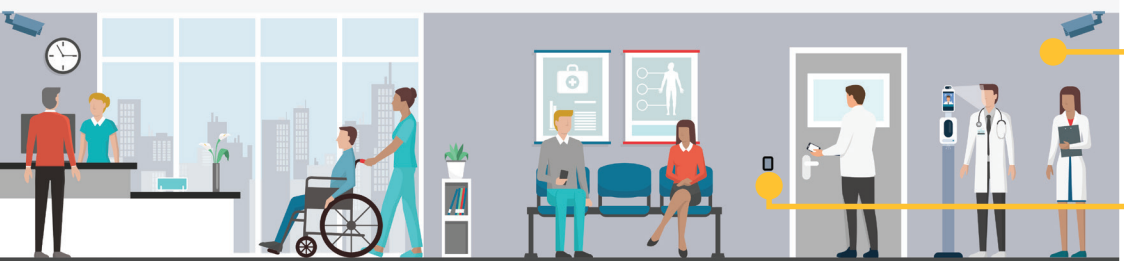
ENERGY

All systems are running at
"Ludicrous Speed."

You know, the temp was already perfect;
I can probably chill for a little.

Ramps down fans to use less energy
until needed.

SECURITY



VIDEO SURVEILLANCE

Someone stepped over the line!
That line in the warehouse should
never be stepped over!

I should show Blake. Blake would
like to know about this.

Activates an alarm at security and shows a
video feed to Blake's computer or phone.

ACCESS CONTROL

There goes Casey, heading toward that
locked exit.

I don't want to keep her trapped in here
forever, so I'll make sure she gets out.

Unlocks door.

SAFETY



FREEZE

It's so cold I can't feel my toes. I mean,
I'm a building so I don't have toes.
But whatever the equivalent is...

Temps like this could cause water in
our pipes to freeze and burst!

Closes outdoor air damper, opens valves
for hot water to flow through pipes.

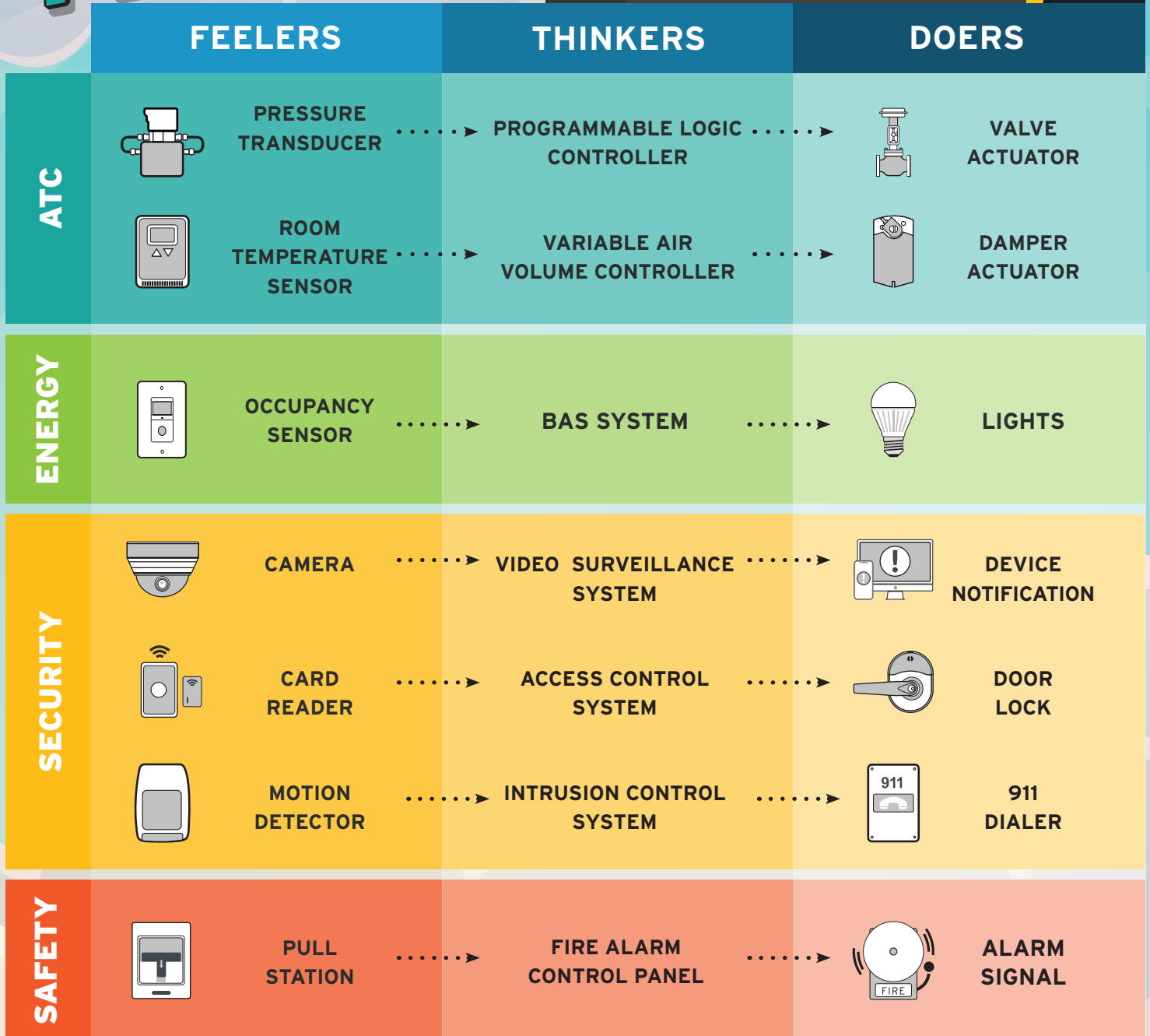
FIRE

Anyone else smell that? Smoke! And
that's not just some vape pen.

My people may not be safe,
and they don't even know.

Sounds alarm, opens exhaust
dampers to purge smoke.

BAS MOST VALUABLE PLAYERS



YOU RUN THE MISSION. WE ASSEMBLE THE TEAM. **BAS SAVES THE DAY!**

BUILDING AUTOMATION

ENERGY

HVAC

SECURITY

TECHNOLOGY SERVICES



WWW.CM3INC.COM

215.322.8400

185 Commerce Dr. Fort Washington, PA 19034